Inclusion criteria

Exclusion criteria

Participants/population (human studies or experimental model systems)

- Humans
- Non-human animals, including laboratory animal studies
- In silico studies or in vitro models utilizing organs, tissues, cell lines, or cellular components

Free living non-human organisms including wildlife, aquatic species, or plants

Exposure

- Exposure to MTR mining activities including residential proximity or occupational exposure, environmental measures (e.g., air, water levels)
- Exposure to mixtures collected from MTR mining areas in an experimental setting
- Exposure to single chemical components of MTR mining
 - Studies with unspecified type of mining conducted prior to widespread use of MTR mining or in geographic areas without MTR mining
- Exposure to coal samples, dust or leachates in vitro

Comparators

- Vehicle-only treatment controls

 in experimental studies
- Case series of miners, descriptive without comparator

Outcomes

- Human health-relevant outcomes, including measures of general well-being
- **Environmental impacts**

Publications (e.g., language restrictions, use of conference abstracts)

- Study must contain original data and must be peer-reviewed
- Articles with no original data, e.g., editorials, reviews
- Studies published in a language other than English will be translated for review
- Non-peer reviewed articles: Conference presentations or other studies published in abstract form only, grant awards, and theses/dissertations
- Retracted articles